



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,380	11/08/2001	George W. Dailey	2001P21146US (2436-112)	5141
6449	7590	10/17/2003	EXAMINER	
ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005			TOLIN, GERALD P	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 10/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/986,380	Applicant(s) DAILEY ET AL.	
	Examiner Gerald P Tolin	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-18, drawn to a sinked electronic article, classified in class 361, subclass 719.
 - II. Claims 19-23, drawn to a method of making the article, classified in class 29, subclass 592.1+.
2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case steps such as providing, contacting, affixing, passing, etc., are so broad as to be capable of producing a multitude of different articles.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and divergent subject matter, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with V. Deluca on 10-8-03 a provisional election was made with traverse to prosecute the invention of group I, claims 1-18. Affirmation of this election must be made by applicant in replying to this Office action. Claims 19-23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
5. Action on elected claims 1-18 follows.

6. The claim 11 and 18 arrays are not seen in the drawings. As such, they are objected to under 37CFR1.83(a). Beware of new matter.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In independent claims 1 and 14, there are numerous references to the same parts as both positive and functional. Such inconsistency makes it impossible to define the scope of what is intended to be presented. In claim 1 line 1, "for----device" is set forth. Again in lines 4 and 5, "adapted----device" is functionally presented. However in line 10 and again in the next to last line of the claim, "contacts---device" appears to be positive. Further complicating the problem is the "when----" clause in the last three lines. What happens when the heat sink is not assembled? Such inconsistencies and contingencies render the intended scope of the claims indefinite. Avoiding "when" clauses and using only consistent positive language to define those parts of the invention desired to be present would cure these defects. Claim 14 has very similar deficiencies. The circuit board and aperture are also referred to as both positive and functional in addition to the sensor device.

Further, claims 13 and 17 use alternative language which causes indefiniteness. "Or" should be avoided.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1,3,4,9-11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Patel(031).

Sink 12, channel device 20, contact portion 21 (flat surface and below 21) and extending member 35 are shown in the cover figure. "extending" in the radial direction is also present in that such is a broad limitation. Any element with any thickness "extends" in a multitude of directions. The claim 4 "stud" reads on 32. All else is clearly seen. The claim 9 and 10 "adapted" functions are capabilities that are met by the reference. Even if the radiographic device were clearly set forth in a positive manner, such claims would still be rejected (under 103) since removing unwanted heat is common to most IC devices.

11. Claims 1,3,4,6-8,11,13-15,17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hodge(767).

Board 10 with an aperture, device 2, sink 16, thermal channel member 4 and extending member (the bottom threaded portion of 4 for 16) are seen in the cover figure. The flat top flange of 4 is the contact portion. All else is clearly shown.

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Patel or Hodge.

All is present in the two references except the details of the different CTE's. It is not only common to have main sinks of copper or aluminum, but also well known for thermal members to be of ceramic or other materials for avoiding thermal mismatch. For these reasons, such would have been obvious. In fact in the Patel reference, 20 is of copper with tellurium, 24 is brass and sink 12 is generally of cu or al.

14. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patel. 32 are the claim 5 members. All else is clearly shown. Three are recited---only two are shown. The number of portions 32 was not demonstrated are critical. As such it would have been obvious to select any plural number of portions to provide better stability and better thermal conduction via more surface area, as is well known in the art.

15. Note the other cited art, especially Dailey(655) and Pawlak(281) which have a common inventor and assignee. Although the scope of the patented claims appears to be different from the current claims at this time, the possibility of double patenting should be avoided. Differences should be discussed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald P Tolin whose telephone number is 703-308-3114. The examiner can normally be reached on M-F first friday off.

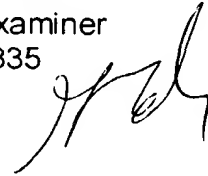
Application/Control Number: 09/986,380
Art Unit: 2835

Page 6

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 703-308-0538. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Gerald P Tolin
Primary Examiner
Art Unit 2835

A handwritten signature in black ink, appearing to read 'G. P. Tolin', is written over the printed name of the examiner.

gpt